REPUBLIC OF GHANA

What works? What fails?

FINDINGS FROM THE NAVRONGO COMMUNITY HEALTH AND FAMILY PLANNING PROJECT

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THE DYNAMICS OF CHANGE

In 1994, the Navrongo Health Research Centre (NHRC)—through the Community Health and Family Planning Project (CHFP)—began to develop an innovative system of health care delivery that would bring doorstep community health and family planning (FP) services to residents of an impoverished, rural traditional locality of northern Ghana. The CHFP tested two main arms of service delivery: mobilizing community leadership structures to select *zurugelu* (togetherness) health volunteers within each village, and mobilizing communities to construct Community Health Compounds (CHC) and homes for Community Health Officers (CHO) who relocate to individual villages and provide doorstep services on motorbikes. These two strategies are tested separately and together, forming a four-cell experiment that tests the health and fertility effects of these three strategic components versus a comparison area receiving normal clinic-based services provided through the Ministry of Health throughout Ghana.

The 'Injectable' becomes a family planning method of choice for rural women

Findings from the first four years of full-scale implementation (i.e., 1996–1999), suggest that while contraceptive use increased in all three experimental areas over time, the only momentous rise in contraceptive use relative to the comparison area was found in Cell 3, the area with combined nurse outreach and *zurugelu* service. However, current contraceptive use is relatively high in Cell 1—the area receiving *zurugelu* services only—as well. Researchers interested in women's contraceptive use are always concerned with whether they continue or discontinue use. Continuation of contraceptive use ultimately is expected to reduce fertility whereas discontinuation is always a matter of concern. An important question to ask is "how does contraceptive discontinuation occur? It occurs because women want to have another child, because they are having a physiological problem with a particular method, or because the social or monetary cost of continuing contraceptive use is unsustainable. In the context of Kassena-Nankana district, the hypothesis is that services offered by the CHFP lower discontinuation rates via two mechanisms: by affecting demand for contraception (which enhances the desired to practice tenaciously through increasing desire for limiting or spacing number of children), or by reducing the perceived constraints on practising contraception (such as psychological factors preventing effective contraceptive use including fear or experience of side-effects and social pressures against use).

CHOs and *zurugelu* volunteers are expected to affect contraceptive continuation differently. It is expected that CHOs would be better than the *zurugelu* system at assisting women to manage psychological and perceived health costs or side-effects. CHOs can provide contraception at the doorstep and at convenient community locations; *zurugelu* volunteers can only refer women to relatively inaccessible sub-district clinics. Z*urugelu* volunteers are expected to increase contraceptive continuation rates by helping to decrease the social costs of contraception.

A study was conducted that examined contraceptive use (all methods except condom) dynamics in all four cells of the experiment, in order to investigate differences in services provided by CHOs and *zurugelu* volunteers. Contraceptive use dynamics are assessed only for modern methods because these are the methods promoted by *zurugelu* and CHOs. Researchers categorized the modern contraceptive status of women in the 1996–2001 Navrongo panel surveys based on their modern contraceptive use in previous years. Over the 1996 to 2001 period, there were 23,534 observations of

7,879 individual women who had been observed in the previous panel year. Most women were observed several times, with an average of three years each. Here is a summary of findings from this study.

- Relative to the comparison area, current use of modern contraceptive methods in each of the four cells reveals that use is highest in the *zurugelu* area followed by the combined area and the nurse outreach area.
- The combined exposure area has the greatest frequency of use among women who weren't using in the previous year and the comparison area has the lowest modern contraceptive incidence. Incidence in the CHO area appears to be gradually rising while incidence remains uniformly high in Cell 3 and uniformly low in Cell 4. New or resumed use fluctuates among women in Cell 1, the *zurugelu* area.
- The proportion of women who continue to use a modern method is lowest in the comparison area, Cell 4, where it initially increases from 29% to 49% and subsequently declines by 2001 to about 25%.
- Women in the nurse outreach area experience the highest continuation rates initially, with rates as high as 62% in 1998. Subsequently their continuation rates fall and rise again, to a level of approximately 53% by 2001. Women in Cell 1, the *zurugelu* area, have continuation rates that rise from 43% in 1996 to 61% in 2001.

A statistical procedure was employed to examine the continuation of modern method use in the current year among women who were using a modern method to avoid or delay pregnancy in the previous year. Results showed that:

- Initially, women exposed to CHOs had the highest contraceptive continuation—with a chance 3.8 times more likely to continue relative to women in the comparison area—whereas women exposed to combined treatment had a chance 2.6 times of continuing to use modern contraceptives relative to women in the comparison area.
- Contraceptive continuation among educated women in the three experimental areas is significantly higher than that of uneducated women in the comparison area—in fact, it is twice as high on average.
- Adoption of Depo-Provera is highest in areas with a CHO. Depo-Provera forms 89% of new or resumed modern method use among women in the nurse area, 77% of new or resumed use among women in the combined area, 68% of new or resumed use among women in the *zurugelu* area, and 67% of new or resumed use among women in the comparison area.
- Contraceptive continuation rates are highest among IUD users, followed by Depo-Provera users and pill users. This pattern is observed for women in each of the four cells. Women in the comparison area have the lowest continuation rate for each method compared with women in other areas. When women change modern methods, they are most likely to change to Depo-Provera—followed by the pill in all areas—except the nurse outreach area. In that area alone, they are more likely to change to the pill.

Conclusion

The combined dynamics of modern contraceptive adoption and continuation explain fertility differentials in the contrasting exposure areas of the CHFP experiment. While the frequency of contraceptive use is the basis for fertility change, continuation of use is crucial for fertility decline to take place. Low modern method adoption rates among women in the CHO area and low contraceptive continuation rates among uneducated women in Cells 1 and 2 appear to explain the fertility differentials observed across experimental cells. Reasons for not currently using a contraceptive method given by women who have discontinued contraceptive use fail to shed light on differential continuation rates in CHFP experimental cells. This merits further investigation[1].

[1] Williams, John E., Elizabeth F. Jackson, Isaac Akumah, and James F. Phillips. 2003. "The determinants of contraceptive use dynamics in Kassena-Nankana district of northern Ghana." Paper presented at the Annual Meeting of the Population Association of America, Minneapolis, Minnesota, 1-3 May.

Send questions or comments to: What works? What fails?
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